

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010061**Date Inspected:** 12-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Liu Fawen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG & TOWER Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Sandeep Kumar was present during the times noted above for observations relative to the work being performed.

**BAY 2**

The following NDT inspection carried out as per the ZPMC submitted Notification No. 004620

**Magnetic Particle Testing**

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. FB3013 – 002 – 014; 039; 047; 023; 038; 048
2. FB3013 – 003 – 012; 022; 048; 025; 019; 047
3. FB3084 – 001 – 010; 012; 013; 039 – Green Tag #11192
4. FB3099 – 001 – 002; 016

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint # 039 located on FB3003 – 002. Welder is identified as 045203. ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

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FCAW process welding of weld joint # 038 located on FB3059 – 001. Welder is identified as 045227. ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – B – U2 – F.

FCAW process welding of weld joint # 094 located on FB3006 – 001. Welder is identified as 062438. ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

### BAY 5

The following NDT inspection carried out as per the ZPMC submitted Notification No. 004609

#### Magnetic Particle Testing

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. TR2A – PP30 – 001; 002
2. TR2A – PP32 – 001; 002
3. TR2A – PP34 – 001; 002
4. TR2A – PP36 – 001; 002
5. TR1A – PP29 – 001; 002
6. TR1A – PP31 – 001; 002
7. TR1A – PP33 – 001; 002
8. TR1A – PP35 – 001; 002
9. TR1B – PP29 – 003; 004
10. TR1C – PP72 – 005; 006
11. TR1E – PP32 – 009; 010
12. TR1B – PP31 – 003; 004
13. TR1E – PP34 – 009; 010
14. TR1C – PP30 – 005; 006
15. TR1B – PP35 – 003; 004
16. TR7B – PP8.5 – 003; 004

#### Ultrasonic Testing

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. TR1A – PP31 – 001; 002
2. TR1A – PP33 – 001; 002
3. TR2A – PP32 – 001; 002
4. TR2A – PP34 – 001; 002

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint # 012 located on Traveler Rail 10TR3 – 026. Welder is identified as 205390.

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ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

FCAW process welding of weld joint # 010 located on Traveler Rail 10TR3 – 021. Welder is identified as 204342.

ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

FCAW process welding of weld joint # 011 located on Traveler Rail 11TR3 – 029. Welder is identified as 215250.

ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

FCAW process welding of weld joint # 010 located on Traveler Rail 10TR3 – 021. Welder is identified as 204342.

ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

BAY 6

Tower

This QA Inspector observed the following work in progress:

SMAW process repair welding of weld joint #8B located on Tower Strut WD1 – A305 – 77M – 1. Welder is identified as 048659. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

SMAW process repair welding of weld joint #1A located on Tower Strut WD1 – A305 – 77M – 2. Welder is identified as 054467. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

SMAW process repair welding of weld joint #7B located on Tower Strut WD1 – A305 – 77M – 1. Welder is identified as 048659. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

SMAW process repair welding of weld joint #8A located on Tower Strut WD1 – A305 – 53M – 1. Welder is identified as 053753. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

SMAW process repair welding of weld joint #2A located on Tower Strut WD1 – A305 – 65M – 2. Welder is identified as 049769. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

SMAW process repair welding of weld joint #2A located on Tower Strut WD1 – A305 – 53M – 1. Welder is identified as 048617. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

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SMAW process repair welding of weld joint #7B located on Tower Strut WD1 – A305 – 77M – 3. Welder is identified as 049769. ZPMC QC is identified as Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – FCM – Repair – 1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No Relevant Conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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